

DEVAL L. PATRICK GOVERNOR

TIMOTHY P. MURRAY LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD SECRETARY

JOHN AUERBACH COMMISSIONER

The Commonwealth of Massachusetts
Executive Office of Health and Human Services

Department of Public Health

William A. Hinton State Laboratory Institute

William A. Hinton State Laboratory Institute 305 South Street, Jamaica Plain, MA 02130

Jessica Lee, ADA Suffolk County District Attorney's Office

By e-mail

March 8, 2012

Re: Comm. v.

State Lab no.

ADA Lee.

Please find the discovery materials, for the case noted above, collated in the following manner:

- 1) c.v.s of the chemists
- 2) the Drug Lab Evidence Office Receipt to the Boston Police.
- 3) the inventory control cards
- 4) the Drug Powder Analysis Forms
- 4) the gas chromatography/mass spectrometry (gc/ms) data

I was the custodial chemist for this case, responsible for the chain of custody, the weighing of the substance and the preliminary tests. Kate Corbett was the confirmatory chemist operating the gc/ms.

If you need further clarification of these materials, call me directly at (617) 983-6627.

Sincerely,

Michael Lawler Senior Chemist

Cc: Kate Corbett

### Curriculum Vitae

#### Michael Lawler

#### **Education:**

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975 Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

### **Experience:**

1990-present currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits (e.g. strychnine in MDMA)

2005-2008 lecturer in chemistry, Curry College, Milton, Ma.

1988-1990 New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

1983-1988 Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

1982-1983 NENS hypothyroid assay technologist with Tuft's University

1979-1981 Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

## Additional education and special training

Drug Analysis, completed six week training course by senior staff within the

Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court

Current Drug Trends - Multijurisdictional Drug Task Force Academy August 2009

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

DEA Special Testing Lab Seminar June 2011

Sigma-Aldrich LC/MS – New Applications Fall 2011

#### Journal Publications

<u>Screening</u>, 1992, 1:34-37; Lawler, M., Frederick, S., Rodriguez-Anza, S., Wolf, B., Levy, H., Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases

<u>Genetic Screening</u>, 1990, 11-18, Mitchell, M., Lawler, M., Walraven, C., Hermos, R., To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?

<u>The Journal of Pediatrics</u>, 116: 78-83, Secor-McVoy, J., Lawler, M., Schmidt, M., Ebers, D., Hart, P., Pettit, D., Blitzer, M., Wolf, B., Partial Biotinidase Deficiency: Clinical and Biochemical Features

## **Professional Affiliations**

Northeastern Association of Forensic Scientists (NEAFS) since 2005

### Awards

Theobald Smith Education Grant for graduate studies

# Curriculum Vitae

Kate A. Corbett

## Education

Bachelor of Science Degree, CHEMISTRY May 2003 MERRIMACK COLLEGE

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

## <u>Employment</u>

Chemist II State Laboratory Institute (March 2008-Present)

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws
- > Operate analytical instrumentation, microscopes and balances for forensic drug analysis

Chemist I State Laboratory Institute (2005-March 2008)

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Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- > Operate analytical instrumentation for the purpose of performing forensic drug analysis (1996) (1996) (1996) (1996) (1996)
- Successfully-completed an eight week training course in the analysis of drugs conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory
- > Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005

Research Associate (September 2003 - August 2005)

SENSOR TECHNOLOGIES, INC. - Shrewsbury, MA

- > Prepared chemistries used in making sensor beads
- > Generated and examined sensors employing fluorescence spectroscopy
- Performed protein, dye and sugar assays using UV/VIS spectrophotometry
- > Carried out titrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

Intern (March 2003 – August 2003)

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units

Boston Police	CC s			
DRUG RECEIPT		)К# <u>08</u> Б# 74		
1 1-4-40 for 11				
		TRUCTION #		
District/Unit DY BUNC 71	6/10 S	intery_		
Name & Rank of Arresting Officer			ID#	
· · · · · · · · · · · · · · · · · · ·				
DEFENDANT'S NAME	ADD	RESS	CITY	STATE
			Darapeage	MA
			LARI	JSE ONLY
DESCRIPTION OF ITEMS SUBMITTED		GROSS	GROSS	ANALYSIS
•		QUANTITY	WEIGHT	NUMBER
Lightly wroused bons des	S B Bond	_ //	16.33	
(0, 0)	, \		222	
ichty madsing pad close B	rack		d. Tog	
j				
		**	•	
		No. of Contract of		
pe completed by ECU personnel only	1			
20 completed by Eco beigoiniei only	· (+)		1/2	
$\mathcal{D}_{\ell} \wedge 1$		/	1 / C-	/
ne and Rank of Submitting Officer	negar		ID#//_/	
ne and Rank of Submitting Officer 1	region		ID# // 4	-20-11

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No.			Date A	nalyzed: \ 20 / [
City:	Boston	D.C.U. Po	lice Dept.	
Officer:	P.O. REN	NEE JACKS	ИС	
Def:				
Amount:				Subst: SUB
No. Cont:	11	Cont: pb		
Date Rec'd:	07/20/201	11	No.	Analyzed: 2
Gross Wt.:	16.33	1000	Ne	et Weight: 0,33
•	ت		v	# Tests: 15 MM
Destina	ስስ <mark></mark> ስስ	ire	Cindiana (	· UWA

No.
City: Boston D.C.U. Police Dept.

Officer: P.O. RENEE JACKSON

Def:

Amount: Subst: SUB

No. Cont: 1 Cont: pb

Date Rec'd: 07/20/2011 No. Analyzed:

Gross Wt.: 2.32 r Net Weight: Co 3 1 9

# Tests: 9 MM

Prelim: COLOLINE Findings: 1 Community of the content of the content

SAMPLE # AGENCY	Boston DOM ANALYST MYC
No. of samples tested:	Evidence WL (6.339
PHYSICAL DESCRIPTION:	Gross Wt ( ): 11, 3789
11 p b with some source.	Gross Wt ( ):
8 Corner	Pkg. Wt:
+ 1 3 smaller (1 spened	
41 layer by net 1,0733	76 11 \N \O
#2 smalluber net 0.2498	3=0.7494s 16=1.0000g
PRELIMINARY TESTS Spot Tests  Cobalt Thiocyanate (A) Think A  Marquis  Froehde's  Mecke's	Microcrystalline Tests  Gold Chloride  TLTA ( ) THER TESTS
PRELIMINARY TEST RESULTS	GC/MS CONFIRMATORY TEST
RESULTS COCOLNE	RESULTS COCUMP
DATE 1-7-12	OPERATOR VAL
	DATE 1-26-12

# <del>DRUG POWDER ANALYSIS FORM</del>

	SAMPLE#		AGENCY DOS	ton DOM	ANALYST MY	-
٠.	No. of sample	es tested:			Evidence WL	330
	PHYSICAL DES	SCRIPTION:	kne -	:		789
	lipby	NAN SOUL	, (Co	Gro	oss Wt( ):	
	il	1×07/3×	*		Pkg. Wt:	3358
	•	9× = 1×5564 \$	Tope ned, w	nknotted)	Net Wt: (1)	/
)6		0.0	V		260=20	2100
		0×2498× 3×=	1.0733,48	- 8,3864	y 10g = 101	0002-8
		9.7 003	V:	A DUGU		72275
1		940	0.249843	- 0,774 ·	8 - 1	)000g
		~5864 <del>†</del> ·		9.3358	<u> </u>	
		0+7 94+ 9+350*		U		· · · · · ·
		0.0	#2		rystalline Tests	#2
	i niocyanate, (A	) the blue o	10	Gold Chloride		D <sub>W</sub>
-	Marquis		_O	TLTA (	, (I) (I)	
	Froehde's	DIXKBROWN	0	<u>отн</u>	ER TESTS	
	Mecke's		_ <del>_</del>			
•			<b>-</b>		· <del>*</del> .	,
	•		•			
==	<u> </u>				·	
	PRELIMINARY	<u>TEST RESULȚS</u>		GC/MS CON	FIRMATORY TEST	
	RESULTS	<u>CO conh</u>	<u>l</u>	RESULTS	cocure	
	DATE	1-7-12		MS OPERATOR	KAR	-
	.*			DATE	1-26-12	
			•	~···		

1-12-12

DRUG POWDER ANALYS	IS FORM
	AGENCY BUS BRUDOL ANALYST MC
No. of samples tested:	Evidence Wt.
PHYSICAL DESCRIPTION:	Gross Wt ( ): 0,4128
	Gross Wt ( ):
lpb w/sub -	Pkg. Wt:
	Net Wt: 0 = 312]
	OHAUS 2334 1-7-12
	20 = 20 W018 10 = 10,0002 g
	10% = 10,0002-8
	5° = 4.9999
	1 = 1,0000g
PRELIMINARY TESTS	
Spot Tests	Microcrystalline Tests
Cobalt Thiocyanate (1)	Gold Chloride
MAKE. E.	TLTA TO LA H +
Marquis	ILIA VIII

PRELIMINA	RY TEST RESULTS
RESULTS_	COCOLING
DATE	1-7-12

Froehde's\_

GC/MS CC	NFIRMATORY TEST
RESULTS_	Cochin
MS OPERATOR	KAC
DATE_	1-12-12
	•

OTHER TESTS

VKAC 37/12

Information from Data File:

File Name : F:\SYSTEM7\01\_11\_12\813232.D

Operator : KAC

Date Acquired : 11 Jan 2012 18:12

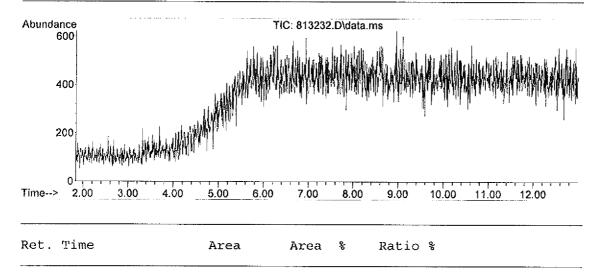
Sample Name : B

: BLANK

Submitted by Vial Number

: . 1

AcquisitionMeth: DRUGS.M Integrator : RTE



File Name : F:\SYSTEM7\01\_11\_12\813233.D

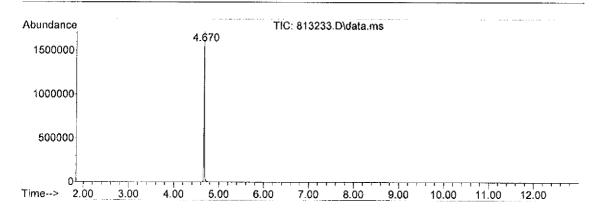
Operator : KAC

Date Acquired : 11 Jan 2012 18:28

Sample Name : COCAINE STD

Submitted by

Vial Number : 33
AcquisitionMeth: DRUGS.M
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.670	1516817	100.00	100.00

File Name : F:\SYSTEM7\01 11 12\813233.D

Operator : KAC

Date Acquired : 11 Jan 2012 18:28

Sample Name : COCAINE STD

Submitted by

Vial Number : 33 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

C:\Database\SLI.L Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 70

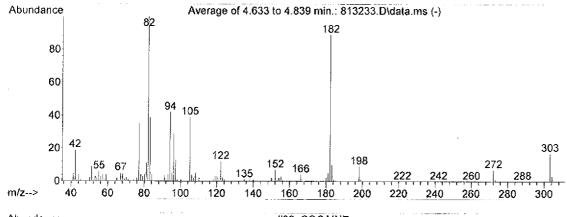
99

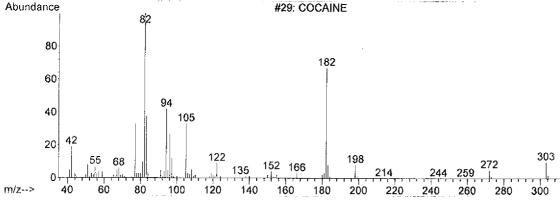
C:\Database\PMW\_TOX2.L

PK# RT Library/ID CAS# Qual

1 4.67 C:\Database\SLI.L

COCAINE 000050-36-2



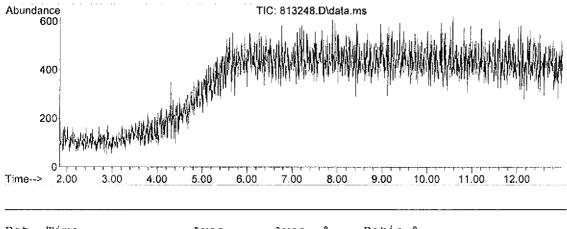


File Name : F:\SYSTEM7\01 11 12\813248.D

Operator : KAC

Date Acquired : 11 Jan 2012 22:21

Sample Name : BLANK
Submitted by : MGL
Vial Number : 2
AcquisitionMeth: DRUGS.M
Integrator : RTE



Ret. Time Area Area % Ratio %

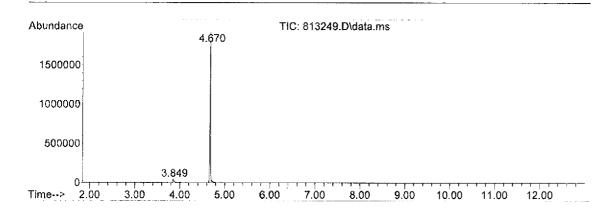
File Name : F:\SYSTEM7\01\_11\_12\813249.D

Operator : KAC

Date Acquired : 11 Jan 2012 22:37

Sample Name :

Submitted by : MGL Vial Number : 49 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %	
3.849 4.670		5.22 94.78	5.51 100.00	

File Name : F:\SYSTEM7\01 11 12\813249.D

Operator : KAC

Date Acquired : 11 Jan 2012 22:37

Sample Name :

Submitted by : MGL Vial Number : 49 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80

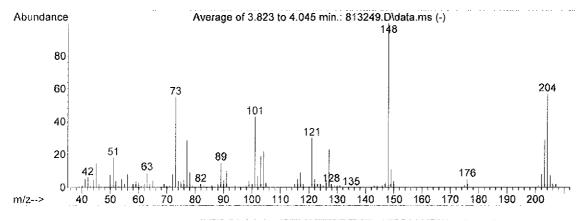
C:\Database\NIST05a.L

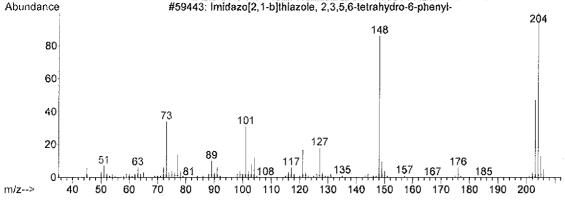
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID		CAS#	Qual
1	3.85	C:\Database\NIST05a.L Imidazo[2,1-b]thiazole,	2,3,5,6-tet	006649-23-6	97

Imidazo[2,1-b]thiazole, 2,3,5,6-tet 006649-23-6 97
Imidazo[2,1-b]thiazole, 2,3,5,6-tet 014769-73-4 96
Imidazo[2,1-b]thiazole, 2,3,5,6-tet 006649-23-6 95

Minimum Quality: 70





File Name : F:\SYSTEM7\01\_11\_12\813249.D

Operator : KAC

Date Acquired : 11 Jan 2012 22:37

Sample Name

Submitted by : MGL Vial Number 49 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 70

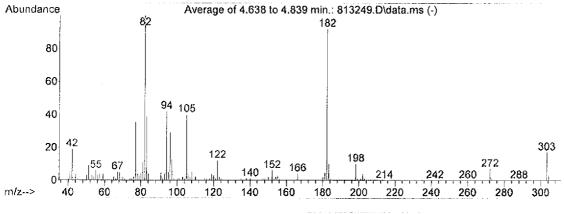
C:\Database\PMW\_TOX2.L

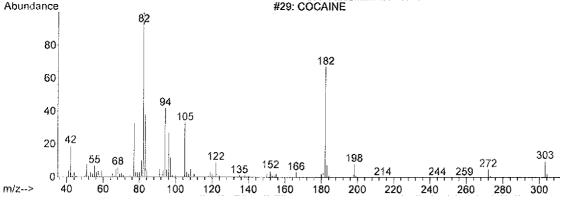
PK# RT Library/ID CAS# Qual

2 4.67 C:\Database\SLI,L

COCAINE

000050-36-2 99





File Name : F:\SYSTEM7\01\_11\_12\813251.D

Operator : KAC

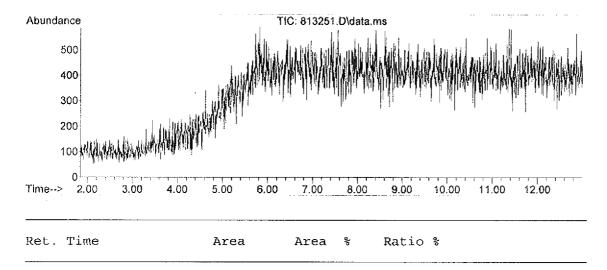
Date Acquired : 11 Jan 2012 23:07

Sample Name : BLANK

Submitted by

Vial Number 2 AcquisitionMeth: DRUGS.M

Integrator : RTE



File Name : F:\SYSTEM7\01\_11\_12\813252.D

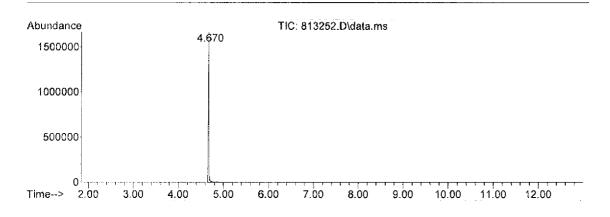
Operator : KAC

Date Acquired : 11 Jan 2012 23:23

Sample Name : COCAINE STD

Submitted by

Vial Number : 52 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.670	1445569	100.00	100.00

File Name : F:\SYSTEM7\01 11 12\813252.D

Operator : KAC

Date Acquired : 11 Jan 2012 23:23

Sample Name : COCAINE STD

Submitted by

Vial Number : 52 AcquisitionMeth: DRUGS.M Integrator : RTE

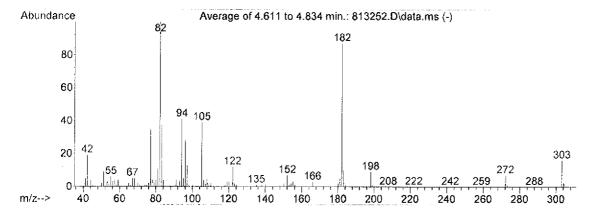
Search Libraries: C:\Database\SLI.L Minimum Quality: 80

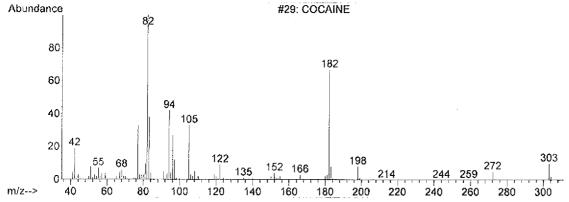
C:\Database\NIST05a.L

C:\Database\PMW TOX2.L

PK# RT Library/ID CAS# Qual

1 4.67 C:\Database\SLI.L COCAINE 000050-36-2





Minimum Quality: 70

99

### Area Percent / Library Search Report

Information from Data File:

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Operator : KAC

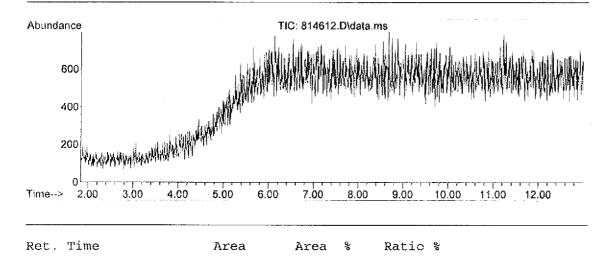
Date Acquired : 24 Jan 2012 13:29

Sample Name : BLANK

Submitted by Vial Number

AcquisitionMeth: DRUGS.M

Integrator : RTE



File Name : F:\SYSTEM7\01\_24\_12\814613.D

Operator : KAC

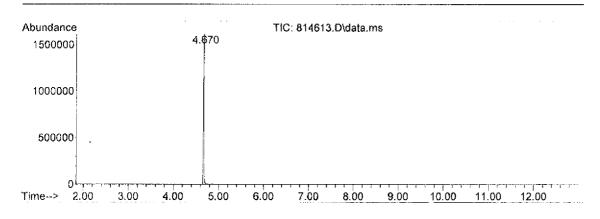
Date Acquired : 24 Jan 2012 13:45

Sample Name : COCAINE STD

Submitted by Vial Number

Vial Number : 13 AcquisitionMeth: DRUGS.M

Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.670	1623834	100.00	100.00

File Name : F:\SYSTEM7\01 24 12\814613.D

Operator : KAC

RT

Date Acquired : 24 Jan 2012 13:45

Sample Name : COCAINE STD

Submitted by

PK#

Vial Number : 13 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

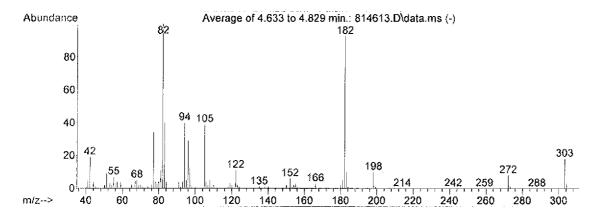
:\Database\SLI.L Minimum Quality: 80 :\Database\NIST05a.L Minimum Quality: 70

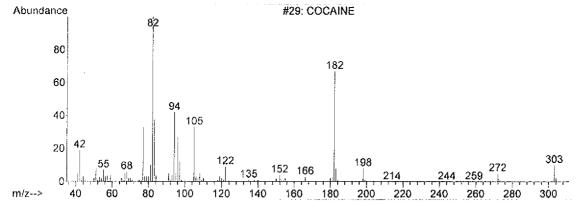
C:\Database\NIST05a.L
C:\Database\PMW\_TOX2.L

Library/ID CAS# Qual

1 4.67 C:\Database\SLI.L

COCAINE 000050-36-2 99



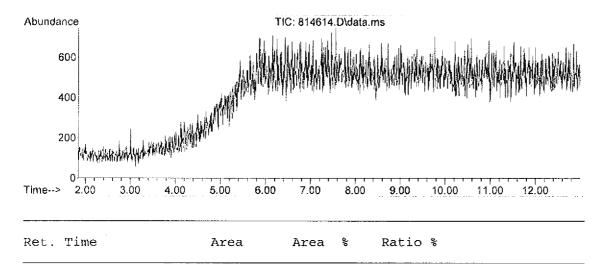


File Name : F:\SYSTEM7\01\_24\_12\814614.D

Operator : KAC

Date Acquired : 24 Jan 2012 14:01

Sample Name : BLANK
Submitted by : MGL
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE



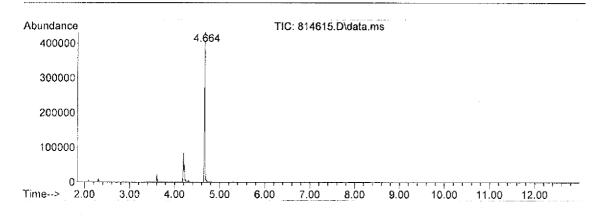
File Name : F:\SYSTEM7\01 24 12\814615.D

Operator : KAC

Date Acquired : 24 Jan 2012 14:17

Sample Name : Submitted by : M

Vial Number : 15
AcquisitionMeth: DRUGS.M
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.664	399596	100.00	100.00

File Name : F:\SYSTEM7\01 24 12\814615.D

Operator : KAC

Date Acquired : 24 Jan 2012 14:17

Sample Name : Submitted by : MGL Vial Number : 15

AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW TOX2.L

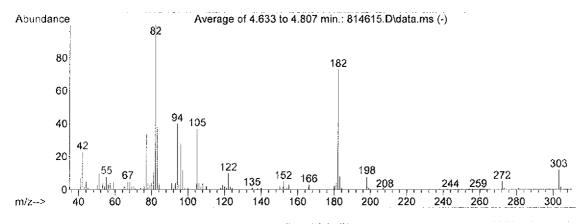
PK# RT Library/ID CAS# Qual

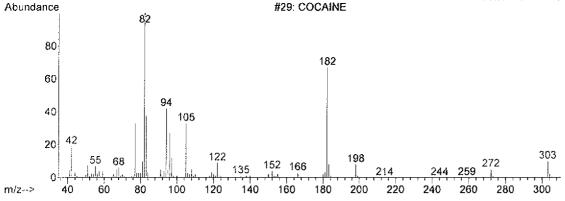
1 4.66 C:\Database\SLI.L

COCAINE

000050-36-2 99

Minimum Quality: 70





File Name : F:\SYSTEM7\01 24 12\814616.D

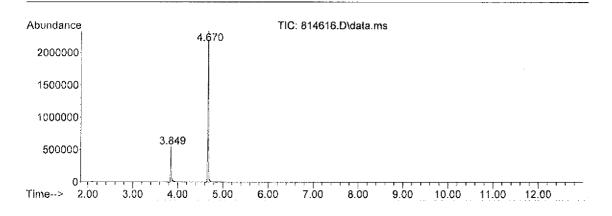
Operator : KAC

Date Acquired : 24 Jan 2012 14:32

Sample Name : Submitted by : MGL Vial Number : 16

: 16 : DRUGS.M

AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %
3.849		20.42	25.65
4.670		79.58	100.00

File Name : F:\SYSTEM7\01 24 12\814616.D

Operator : KAC

Date Acquired : 24 Jan 2012 14:32

Sample Name :

Submitted by : MGL Vial Number : 16 AcquisitionMeth: DRUGS.M Integrator : RTE

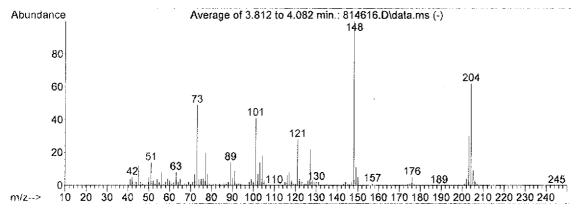
Search Libraries: C:\Database\SLI.L

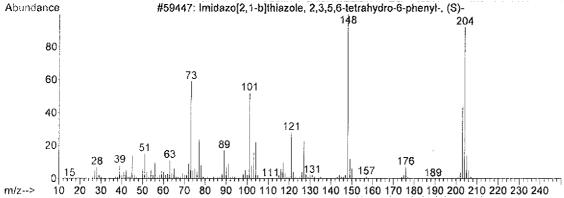
:\Database\SLI.L Minimum Quality: 80 :\Database\NIST05a.L Minimum Quality: 70

98

C:\Database\NIST05a.L
C:\Database\PMW TOX2.L

Imidazo[2,1-b]thiazole, 2,3,5,6-tet 006649-23-6





File Name : F:\SYSTEM7\01\_24\_12\814616.D

Operator : KAC

Date Acquired 24 Jan 2012 14:32

Sample Name

Submitted by Vial Number 16 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80

C:\Database\NIST05a.L

Minimum Quality: 70

C:\Database\PMW TOX2.L

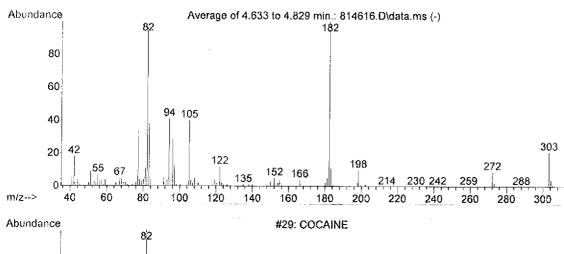
PK# RT Library/ID CAS# Qual

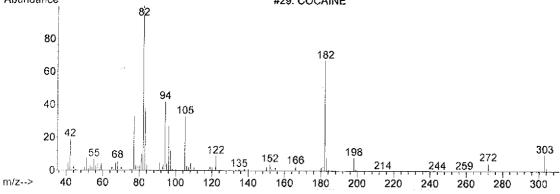
2 4.67 C:\Database\SLI,L

COCAINE

000050-36-2

99





File Name : F:\SYSTEM7\01\_24\_12\814631.D

Operator : KAC

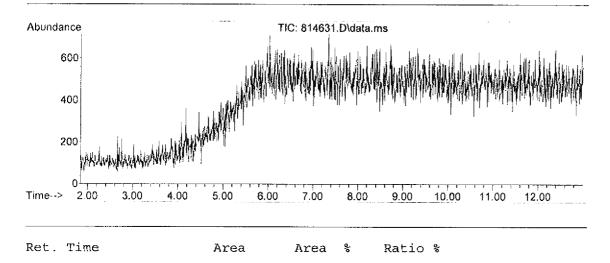
Date Acquired : 24 Jan 2012 18:26

Sample Name : BLANK

Submitted by

Vial Number :

AcquisitionMeth: DRUGS.M Integrator : RTE



File Name : F:\SYSTEM7\01\_24\_12\814632.D

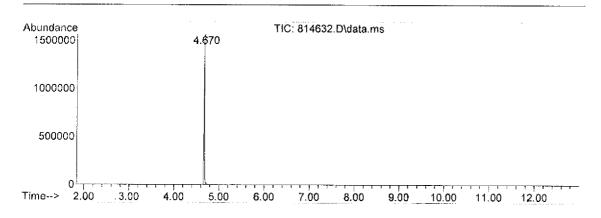
Operator : KAC

Date Acquired : 24 Jan 2012 18:42

Sample Name : COCAINE STD

Submitted by

Vial Number : 32 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.670	1595465	100.00	100.00

File Name : F:\SYSTEM7\01\_24\_12\814632.D

: KAC Operator

: 24 Jan 2012 Date Acquired 18:42

Sample Name COCAINE STD

Submitted by

Vial Number 32 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 70

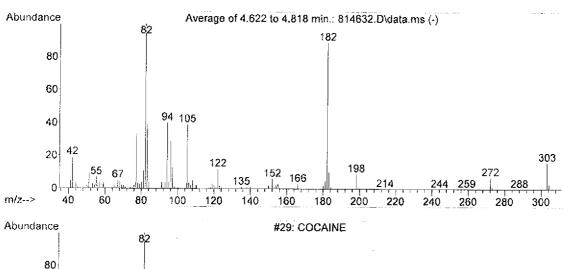
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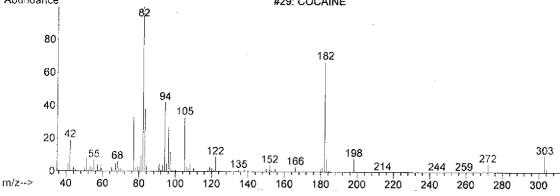
PK# RTLibrary/ID CAS# Qual

1 4.67 C:\Database\SLI.L COCAINE

000050-36-2

99





This is the last page of the transmission.

No further data.